

Pipe boom plan at Perdido Pass: Engineers to build \$4.6 million steel barrier to keep oil out of wetlands, waterways to north

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ORANGE BEACH, Ala. -- With lightweight boom no match for the swift current in Perdido Pass, a \$4.6 million project will extend a barrier of steel pipes for more than half a mile in an effort to keep oil out of wetlands and waterways to the north.

The floating pipes -- a yard in diameter and filled with polystyrene foam -- will be suspended from chains attached to two rows of pilings driven into the bottom of the pass, according to plans submitted to the U.S. Army Corps of Engineers.

The barrier will be anchored on the west side of the pass near the Gulf entrance and extend in a curve 3,200 feet to the east bank, to a spot south of the Ala. 182 bridge, said John Baker, president of Thompson Engineering, which is designing the system.

"It's simply a much more rugged boom system," Baker said. "This is a much more harsh environment with the incoming and outgoing current and wave action."

Also, said Ken Grimes, Orange Beach city administrator, "Part of it will be below the surface as well, to help keep anything from coming in underneath."

Others who reviewed the design at the Press-Register's request spoke of its attributes but noted that there are no assurances that this or any other scheme can keep oil out.

The threat to the pass was made clear Wednesday when globs of oil drifted through and moved into nearby inland waters.

Baker said that engineers and state officials discussed several ideas to block oil from entering the pass, and determined that the stout pipe boom had the best chance. The current in the pass can exceed 8 knots.

Baker said late last week that the project is scheduled to be in place within 20 days.

"It will certainly work better than anything out there now," he said. "The concept of this is to intercept and pool the oil on the surface where it can be removed, and yet be capable of withstanding the wave action there."

Baker said the curve of the boom will funnel oil floating in with the tide to the east end of the system, where it can be collected.

If a tropical storm or hurricane threatened the area, the system could be taken down, he said.

Conventional boom will be extended across the pass north of the pipe barrier as a second line of protection, according to the plan.

The system includes a 120-foot, removable section to allow emergency and oil-recovery boats in and out of Cotton Bayou, Terry Cove and other backwaters.

The pass will be closed to recreational boating while the system is in place, according to the plan. Grimes acknowledged that this would only add to the oil spill's impact on the local economy.

"Recreational boating is huge here," he said. "On any given summer weekend, you might have 1,000 boats out on the water."

Tom Hanley, professor of chemical engineering at Auburn University, agreed Friday that the Perdido Pass system could serve better than conventional boom at stopping oil intrusion.

"But under some conditions -- wind, tide, current -- some is going to get through," he said. "The answer is you do everything you can, knowing that nothing is going to work perfectly, but you try every line of defense."

The aim, he said, is to "stop what you can" and "make the cleanup of what gets through easier."

Robert Young, a coastal geologist with Western Carolina University, cautioned against allowing the need for fast action to trump all other concerns.

Young said several projects, including one to fill in the pass cut in Dauphin Island by Hurricane Katrina, are being pushed through the corps approval process with little time for review.

"I'm not saying it's the wrong thing to build a seawall to close the Katrina Cut, but there's been very little discussion about why this is the right thing to do," he said. "We're going to be dealing with this oil spill for a long time, not a couple of days, but a couple of years. We need to make sure we're not doing more harm than good."

He said that officials will have to create new systems, such as the Perdido pipe barrier, while also examining how those systems affect the environment.

"There's no doubt we're going to have to bring to bear unique engineering solutions. Some may work and some may not," he said.

State officials are overseeing the construction of the system at Perdido Pass. BP PLC is paying for it, according to Kris Sliger, a BP executive.

Ann Crawford, who lives at Wolf Bay, said the only sure solution to protect local waterways is to bring in sand and rock to plug both the pass and the western entrance to the Intracoastal Waterway at Oyster Bay.

"The tide at the pass at Alabama Point is so strong that anything out there is going to go under or over a boom," she said. "The only thing they can do that will work it seal off the pass. It might be expensive, but nothing like what it will be if it (oil) gets in here."